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Title : Feeding ecology of Antarctic fur seals: a comparison throughout its distributional range

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Abstract : Seals are an important component of marine ecosystems and occupy a higher trophic level in marine food webs. Factors influencing feeding behavior and prey choice by individuals range from behavioral to morphological characteristics, and all of them may impact fitness of individuals. The availability of prey resources and the effect of prey size and energy content affect the foraging behavior of a predator, and these factors condition a more or less diversified diet, which translates into a more or less specialized or generalized feeding behavior. Behavioral specialization in a population is characterized by overuse of the key resource independently of its availability. These specialists should cope with resource scarcity by using alternative mechanisms (other than increasing their food spectrum), such as allocating more time to key prey searching or increasing their energetic efficiency. The Antarctic fur seal, Arctocephalus gazella, has been historically regarded as an Antarctic krill, Euphausia superba, specialist. The objective of this study is to review published knowledge on resource use of Antarctic fur seals under the light of foraging ecology theory throughout its distributional range, including information from Cape Shirreff, where the most important colony of this species breeds in the South Shetland Archipelago. The analysis shows that krill constitute the bulk of the diet in areas where Antarctic krill is abundant, however, in areas were this species is absent or very sparsely represented, the diet is mainly comprised of fish. The different composition of prey items in the diet of Antarctic fur seals could be showing the differential use of environmental availability in each area, suggesting that the status of specialist predator previously assigned to the species is not well supported when comparing all available information in a spatially broader and integrative context.